U.S. Department of Transportation

Intelligent Transportation Systems Standards Fact Sheet

February 2000

SAE J2368 (Draft) ITS Data Bus (IDB) Conformance Test Procedure

Overview

The ITS Data Bus (IDB), a serial communication bus, may be the bridge between the development-cycle time difference of automobiles and electronics. It may also meet the need to be able to upgrade automobile electronics during the life of the vehicle. It is intended to provide a common network interface for consumer devices, which may be integrated into vehicles.

To obtain a copy of this draft standard, please contact:

Society of Automotive Engineers (SAE)
400 Commonwealth Drive
Warrendale, PA 15096
Tel: (724) 776-4841
Fax: (724) 776-5760
Web site: www.sae.org

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The long development time required to produce a new automobile and the short development time of today's consumer electronic devices has meant that the electronics in a vehicle might lag the state of the art by several years. With the growing consumer-oriented electronics content in today's vehicles, it is becoming more difficult for the automotive manufacturers to meet consumers' expectations. The result is increasing pressure on the vehicle manufacturers from after-market electronics suppliers, who can update their product lines as fast as the device manufacturers can produce new models.

What is this standard for?

This Recommended Practice will define a test procedure for determining whether a device is "IDB-compliant." The test procedure will include both hardware and software tests and their expected results.

Who uses it?

This test procedure will be used by device manufacturers to determine whether their devices are IDB-compliant and possibly by a conformity assessment organization to provide certification of conformance. It is expected that some form of certification will be required to allow a device manufacturer to place an IDB-compliant label on its product.

How is it used?

The test procedure will define the various tests to be performed, the equipment required to perform them, and the expected results of each test. The test procedure may also include a software application that can be used by device manufacturers to readily determine whether their designs are IDB-compliant prior to seeking certification.

Scope

This standard, **SAE J2368, ITS Data Bus (IDB) Conformance Test Procedure**, describes how to test the four layers of the IDB Protocol stack (i.e., SAE J2366-1 Physical Layer, SAE J2366-2 Link Layer, SAE J2366-4 Thin Transport Layer, and SAE J2366-7 Application Message Layer). The document will only test for conformance to the SAE J2366 specifications and will not cover any particular application. It is expected that special interest groups (SIGs) will emerge to develop tests for each device class (SAE J2366-7x listed below).

Related documents

To accommodate the broad scope of this effort, the IDB specifications have been divided into several individual documents. At present, the following documents are defined:

SAE J2355—ITS Data Bus—Architecture Reference Model (Information Report)

SAE J2366-1—ITS Data Bus—Protocol Physical Layer (Recommended Practice)
SAE J2366-2—ITS Data Bus—Protocol Link Layer (Recommended Practice)
SAE J2366-4—ITS Data Bus—Protocol Thin Transport Layer (Recommended Practice)
SAE J2366-7—ITS Data Bus—Protocol Application Message Layer (Recommended Practice)
SAE J2366-7LX—ITS Data Bus—Application Message Layer Lexicon
SAE J2366-7A—ITS Data Bus—Vehicle Application Messages (Recommended Practice)
SAE J2366-7B—ITS Data Bus—Other Application Messages
SAE J2366-7C—ITS Data Bus—Advanced Traveler Information Systems Application Messages
SAE J2366-7D—ITS Data Bus—Computation/Storage Application Messages
SAE J2366-7E—ITS Data Bus—Entertainment Application Messages
SAE J2366-7F—ITS Data Bus—Communications Application Messages
SAE J2366-7G—ITS Data Bus—User Interface Application Messages
SAE J2366-7H—ITS Data Bus—Public Service Application Messages
SAE J2366-7I—ITS Data Bus—Commerce Application Messages
SAE J2366-7J—ITS Data Bus—Navigation Application Messages
SAE J2366-7K—ITS Data Bus—Security Application Messages
SAE J2366-7L—ITS Data Bus—Emergency/Public Safety Messages
SAE J2366-7M—ITS Data Bus—Diagnostic Application Messages
SAE J2366-7N—ITS Data Bus—Warning Application Messages
SAE J2367—ITS Data Bus Gateway (Recommended Practice)
SAE J2368—ITS Data Bus Conformance Test Procedure (this standard)
SAE J1760—ITS Data Bus Data Security Services (Recommended Practice)